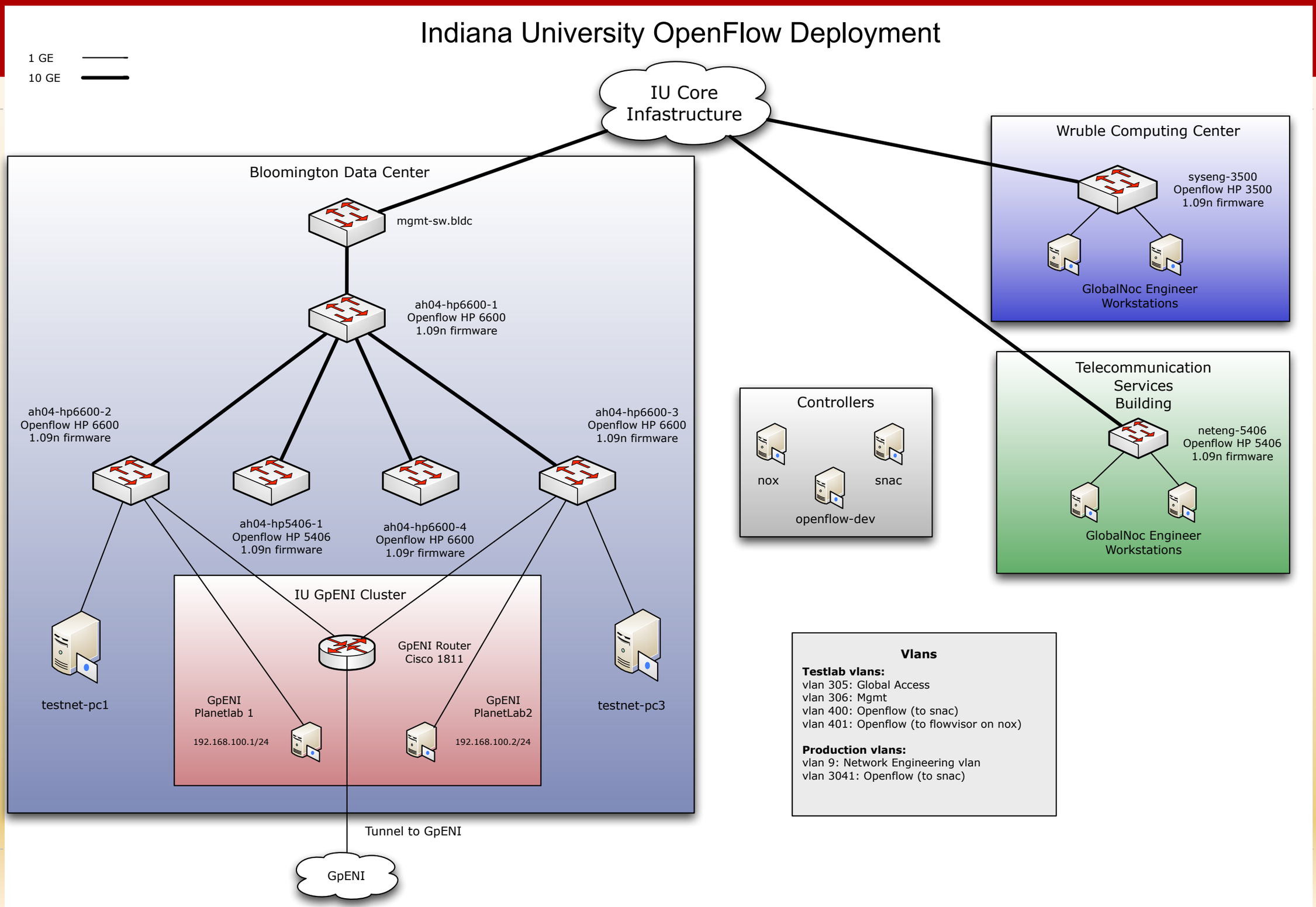
The IU Enterprise Geni Campus Trials

Current State

- 7 HP switches
  - 5 Testlab, 2 Production
- Controllers: NOX, FlowVisor, SNAC
- Measurement: Simple Nagios checks
- GpENI cluster - simple integration

Current State



Vlans

Testlab vlans:
vlan 305: Global Access
vlan 306: Mgmt
vlan 400: Openflow (to snac)
vlan 401: Openflow (to flowvisor on nox)

Production vlans:
vlan 9: Network Engineering vlan
vlan 3041: Openflow (to snac)

Next actions

- Production users (before GEC8)
  - Add users to OpenFlow vlans
  - Issue: Management and IP acls for network engineer subnet
- Multi-Campus Deployment
  - Deploy one of the switches at IUPUI (Indianapolis)
  - Use dedicated I-Light fiber/Ciena Core Directors?
- FlowVisor / Aggregate Manager (before GEC 8)

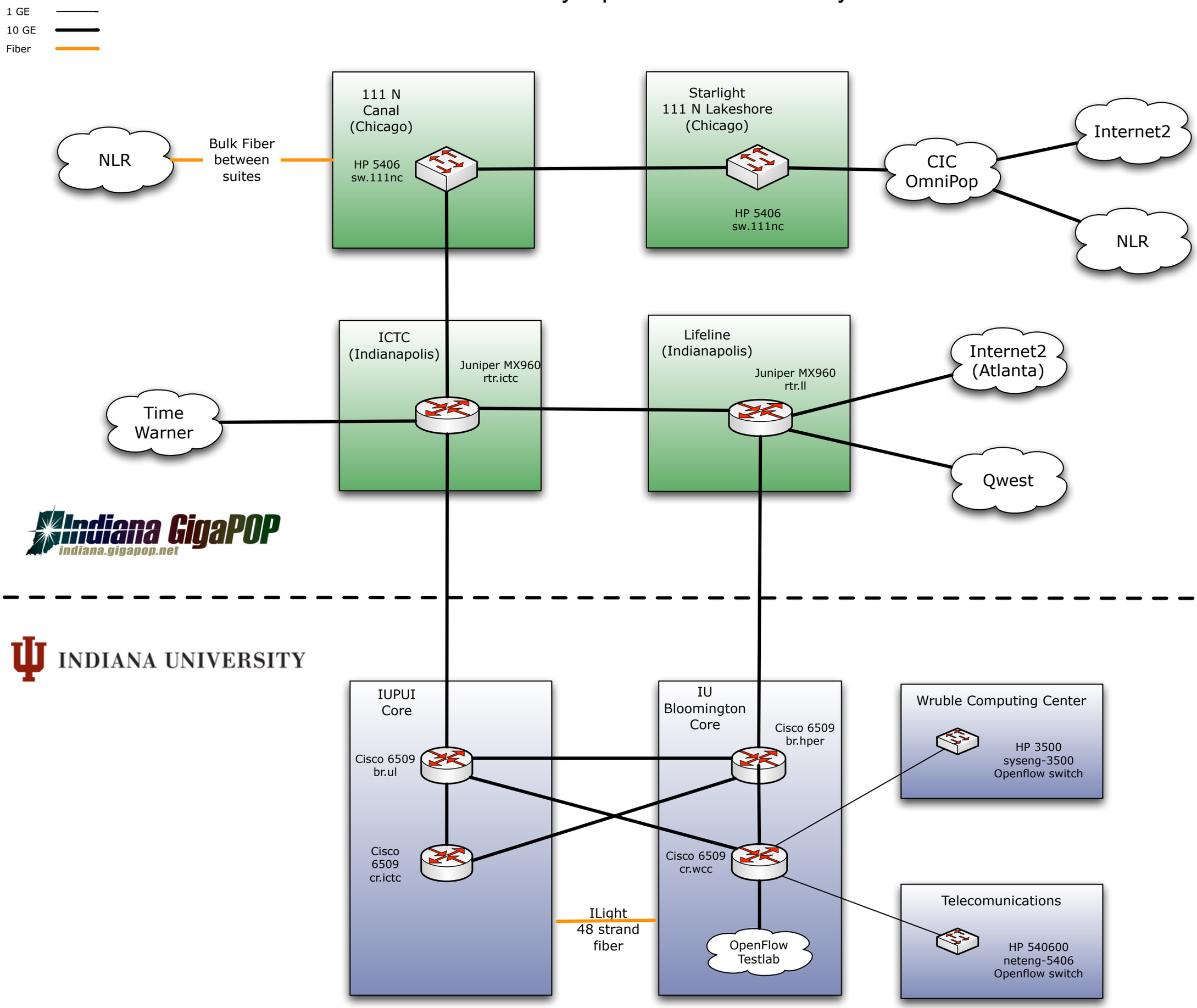
More next actions

- Additional Management/Measurement tests (before GEC8)
  - Nagios checks
  - SNAPP graphs -- SNMP and using NOX direct queries
- Experiments: IU and others
  - IPTV, Measurement, etc
- Visualizations - for operators and demos
- Virtualized server (before GEC8)
- High Throughput testers (before GEC8)

Connections

- Exploring connections to I2 and NLR
  - Connectivity in Chic??
- GpENI cluster (Connected)
  - Increased integration
  - Mapping between PL/VINI slices and OpenFlow slices

Indiana University OpenFlow Connectivity



What we need

- OpenFlow 1.0
  - Firmware, Controllers and other software
- “Hybrid” software -- Ciena SC09 Demo?
- Aggregate Manager
  - Planetlab and other slice mapping/stitching
- Security
- Config Mode - Admin of OpenFlow networks at campus scale

Sentry
Power Tower
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